

REMARKS

Claims 1-10, 19, 27, 36, and 44 are pending in the application. Claims 1-10, 19, 27, 36, and 44 rejected. In response, claims 1, 8-10, and 19 are canceled, claims 2, 5, 6, 7, 27, 36, and 44 are amended, and new claims 45-53 are added.

Claim Rejections – 35 U.S.C. § 112

Claims 1-10, 19, and 27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicants regard as the invention. In particular, the claims are considered incomplete as there is not element in the claimed structure related to and performing the function of a “magnetic separator.”

Independent claims 1 and 19 are canceled and independent claim 27 is amended to recite, in part, “an upper pole piece adjacent said upper guide plate and a lower pole piece adjacent said lower guide plate, said upper and lower pole pieces providing a magnetic field operative to orient workpieces in said passage.” Applicants respectfully submit that the inclusion of the upper and lower pole pieces provide the structure related to and performing the function of a “magnetic separator” as required by the Office action to overcome the rejection.

Claim Rejections – 35 U.S.C. § 103

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being obvious over Sprenger et al (USPN 5,529,703) in view of Perseke et al. (US 2001/0004999) or Ide (USPN 4,036,376). Claims 1-6 are also rejected under 35 U.S.C. § 103(a) as being obvious over Mohr (USPN 4,272,313) in view of Perseke et al. or Ide. Claims 7 and 19 are rejected under 35 U.S.C. § 103(a) as being obvious over Sprenger et al in view of Perseke et al or Ide and further in view of Alden et al. (USPN 5,180,898). Claims 7 and 19 are also rejected under 35 U.S.C. § 103(a) as being obvious over Mohr in view of Perseke et al or Ide and further in view of Alden et al. (USPN 5,180,898).

Claims 1-7 and 19

Independent claim 1 and 19 have been canceled making the rejection of those claims moot. Claims 2 and 5-7 are amended such that claims 2-7 depend from amended claim 27.

Claim 27

Claims 8-10, 27, 36, and 44 are rejected under 35 U.S.C. § 103(a) as being obvious over Sprenger et al in view of Perseke et al or Ide and further in view of Lamberty (USPN 3,604,611) or Wallington (USPN 3,769,135). Claims 8-10, and 27 are also rejected under 35 U.S.C. § 103(a) as being obvious over Mohr in view of Perseke et al or Ide and further in view of Lamberty (USPN 3,604,611) or Wallington (USPN 3,769,135).

Claim 27 recites, in part, “an upper pole piece adjacent said upper guide plate and a lower pole piece adjacent said lower guide plate, said upper and lower pole pieces providing a magnetic field operative to orient workpieces in said passage; and an adjustment mechanism for adjusting the vertical position of said upper guide plate relative to said lower guide plate; said adjustment mechanism comprising a member that is rotatable about an axis, said rotatable member having a first portion fixed for vertical movement with said upper guide plate and a second portion that is threadedly received in a frame portion of said separator, rotation of said rotatable member about said axis causing axial movement of said rotatable member and thereby of said upper guide plate relative to said frame portion”.

As indicated by the Office action, Sprenger does not teach or suggest an adjustment device for adjusting the vertical position of the upper guide plate. Mohr does not teach an upper and a lower pole piece that provide a magnetic field operative to orient workpieces, as claimed in amended claim 27. Combining Perseke et al or Ide and Lamberty or Wallington with Sprenger or Mohr does not provide the claim elements missing from Sprenger and Mohr.

Perseke et al or Ide were cited as teaching a funnel shaped inlet opening. Neither teach an adjustment mechanism as recited in claim 27. Lamberty does not teach or suggest a rotatable member having a first portion fixed for vertical movement with an upper guide plate where rotation of the member causing axial movement of said rotatable member. The threaded rod 46 in Lamberty is not fixed for movement with the chain assembly 17 and does not move axially.

Instead, the carrier assembly 47, which is threadably mounted on the rod and is attached to the chain assembly 17, moves along the length of the rod thus moving the chain assembly 17.

Wallington does not teach or suggest a member rotatable about an axis and axially movable with an upper guide member. The shaft 34, which is rotated by rotating hand wheel 36, adjusts the distance between the sealer 20 and the conveyor 22 via the jacks 30. The shaft 34 does not move axially.

Thus, Applicants respectfully submit that the proposed combinations do not teach or suggest each and every element of the amended claim 27, or the claims that depend therefrom. Therefore, amended claim 27, and the claims that depend therefrom, are not rendered obvious by the proposed combinations.

Claim 36

Amended claim 36 recites, in part, “an adjustment mechanism that modifies the strength of the magnetic field on the workpieces by adjusting the vertical position of said upper pole piece relative to said upper guide plate, comprising a member that is rotatable about an axis causing axial movement of said upper pole piece”

Sprenger does not teach or suggest a mechanism that modifies the magnetic field strength by adjusting the vertical position of a upper pole piece relative to an upper guide plate. Combining Perseke et al or Ide and Lamberty or Wallington with Sprenger does not provide the claim elements missing from Sprenger.

Perseke et al or Ide were cited as teaching a funnel shaped inlet opening. Neither teach an adjustment mechanism. Lamberty teaches adjusting the distance between two chain conveyors (17, 18) to accommodate different size circuit boards. Wallington teaches adjusting the distance between a sealer (20) and a conveyor (22) to accommodate bottles of different sizes. Both teach adjusting the size of a passage to accommodate different size objects. Neither teach or suggest changing the distance between a pole piece and a guide plate to adjust magnetic field strength irrespective of the size of a passage.

Thus, Applicants respectfully submit that the proposed combination does not teach or suggest each and every element of the amended claim 36, or the claims that depend therefrom.

Therefore, amended claim 36, and the claims that depend therefrom, are not rendered obvious by the proposed combination.

Claim 44

Amended claim 44 recites, in part, “a mechanism releasably supporting said upper guide plate on said frame whereby said upper guide plate is slidable longitudinally along said frame to enable removal of said upper guide plate from said separator.”

Sprenger does not teach or suggest a mechanism releasably supporting an upper guide plate on a frame in a manner that allows the guide plate to be removed by sliding the plate longitudinally along the frame. Combining Perseke et al or Ide and Lamberty or Wallington with Sprenger does not provide the claim elements missing from Sprenger.

Perseke et al or Ide were cited as teaching a funnel shaped inlet opening. Neither teach a mechanism releasably supporting an upper guide plate. In addition, neither Lamberty nor Wallington teach anything regarding a mechanism releasably supporting an upper guide plate in a manner that allows the guide plate to be removed by sliding the plate longitudinally along the frame.

Thus, Applicants respectfully submit that the proposed combination does not teach or suggest each and every element of the amended claim 36, or the claims that depend therefrom. Therefore, amended claim 36, and the claims that depend therefrom, are not rendered obvious by the proposed combination.

New claims

New claims 45-53 do not contain new matter, are fully supported by the specification, and are patentable over the cited art. In particular, claims 45-53 depend from one of amended claims 27, 36, or 44 and are patentable at least by their dependency.

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CONCLUSION

Applicants believe that all of the claims in this case are now in condition for allowance and an indication to that effect is respectfully requested.

Respectfully submitted,

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